

We claim:

1. A method of treating a disease, condition, or disorder involving glutamate levels, the method comprising administering a transporter compound to an individual exhibiting symptoms of a disease, condition, or disorder involving transport of, or activation by, excitatory amino acids.

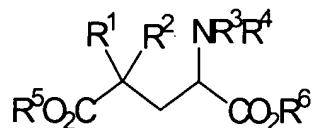
2. The method of claim 1 wherein the transporter compound is an agonist of a glutamate receptor.

3. The method of claim 1 wherein the transporter compound is an antagonist of a glutamate receptor.

4. The method of claim 1 wherein the transporter compound is a ligand of a glutamate receptor.

5. The method of claim 1 wherein the transporter compound selectively binds to one type of glutamate transporter.

6. The method of claim 1 wherein the transporter compound has the structure



wherein

R¹, R², R⁵ and R⁶ are independently

- 1) C1-C6-alkyl,
- 2) C3-C4-alkenyl,
- 3) C3-C5-cycloalkyl,
- 4) H, or
- 5) halogen;

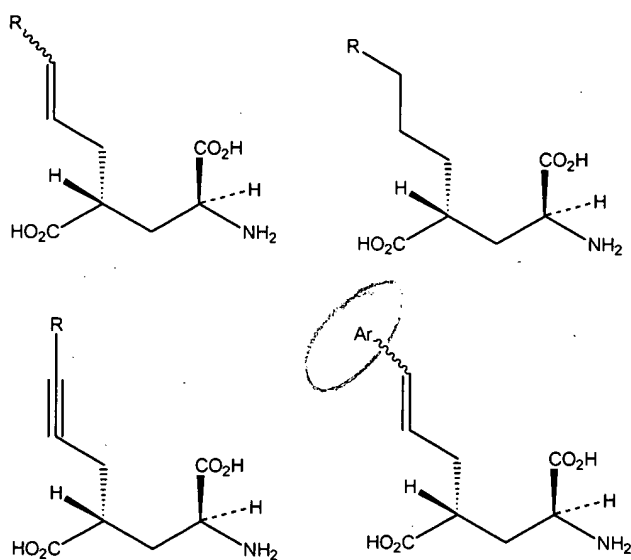
R³ and R⁴ are independently

- 1) H,
- 2) C1-C6-alkyl,
- 3) C3-C4-alkenyl,

- 4) C3-C5-cycloalkyl,
- 5) C1-C6-alkyl-CO-
- 6) C1-C6-alkyl-OCO-
- 7) C1-C6-alkyl-NHCO-
- 8) C1-C6-alkyl-SO₂-
- 9) CF₃SO₂-
- 10) PhSO₂-
- 11) HCO-, or
- 12) C3-C6-alkynyl; and

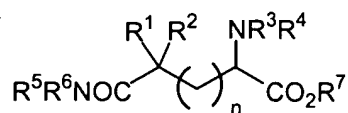
R³ and R⁴ taken together can be -CH₂(CH₂)_nCH₂- wherein n is 0, 1, 2, or 3.

7. The method of claim 1 wherein the transporter compound has the structure



wherein R = H, C1-C6-alkyl, C3-C4-alkenyl, C3-C5-cycloalkyl, C1-C6-alkyl-CO-, C1-C6-alkyl-OCO-, C1-C6-alkyl-NHCO-, HCO-, or C3-C6-alkynyl.

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wherein

n is an integer selected from the group consisting of 0, 1, 2, and 3;

R^1, R^2, R^5 and R^7 are independently

- 1) C1-C6-alkyl,
- 2) C3-C4-alkenyl,
- 3) C3-C5-cycloalkyl,
- 4) H, or
- 5) - halogen;

R^3 and R^4 are independently

- 1) H,
- 2) C1-C6-alkyl,
- 3) C3-C4-alkenyl,
- 4) C3-C5-cycloalkyl,
- 5) C1-C6-alkyl-CO-
- 6) C1-C6-alkyl-OCO-
- 7) C1-C6-alkyl-NHCO-
- 8) C1-C6-alkyl-SO₂-
- 9) CF₃SO₂-
- 10) PhSO₂-
- 11) HCO-, or
- 12) C3-C6-alkynyl;

R^3 and R^4 taken together can be $-\text{CH}_2(\text{CH}_2)_m\text{CH}_2-$ wherein m is 0, 1, 2, or 3;

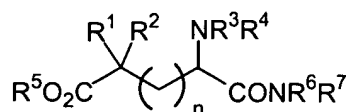
 R^6 is independently

- 1) H,
- 2) C1-C6-alkyl,

- 3) C3-C4-alkenyl,
- 4) C3-C5-cycloalkyl,
- 5) C1-C6-alkyl-CO-
- 6) C1-C6-alkyl-OCO-
- 7) C1-C6-alkyl-NHCO-
- 8) C1-C6-alkyl-SO₂-
- 9) CF₃SO₂-
- 10) PhSO₂-
- 11) HCO-, or
- 12) C3-C6-alkynyl; and

R⁵ and R⁶ taken together can be -CH₂(CH₂)_kCH₂- wherein k is 0, 1, 2, or 3.

9. The method of claim 1 wherein the transporter compound has the structure



wherein

n is an integer selected from the group consisting of 0, 1, 2, and 3;

R¹, R², R⁵ and R⁷ are independently

- 1) C1-C6-alkyl,
- 2) C3-C4-alkenyl,
- 3) C3-C5-cycloalkyl,
- 4) H, or
- 5) halogen;

R³ and R⁴ are independently

- 1) H,
- 2) C1-C6-alkyl,
- 3) C3-C4-alkenyl,
- 4) C3-C5-cycloalkyl,
- 5) C1-C6-alkyl-CO-

- 6) C1-C6-alkyl-OCO-
- 7) C1-C6-alkyl-NHCO-
- 8) C1-C6-alkyl-SO₂-
- 9) CF₃SO₂-
- 10) PhSO₂-
- 11) HCO-, or
- 12) C3-C6-alkynyl;

R³ and R⁴ taken together can be -CH₂(CH₂)_mCH₂- wherein m is 0, 1, 2, or 3.

R⁶ is independently

- 1) H,
- 2) C1-C6-alkyl,
- 3) C3-C4-alkenyl,
- 4) C3-C5-cycloalkyl,
- 5) C1-C6-alkyl-CO-
- 6) C1-C6-alkyl-OCO-
- 7) C1-C6-alkyl-NHCO-
- 8) C1-C6-alkyl-SO₂-
- 9) CF₃SO₂-
- 10) PhSO₂-
- 11) HCO-, or
- 12) C3-C6-alkynyl, and

R⁶ and R⁷ taken together can be -CH₂(CH₂)_kCH₂- wherein k is 0, 1, 2, or 3.